

JOINT OPENING AND EXPANSION TUBE EXTENSION		
Joint Type	(X)	Minimum Tube Length
"ED"	1"	6"
"EE"	2"	7"
"EF"	4''	9"

DOWEL HE	IGHT AND	DIAMETER
T	⊕®	Diameter
7.0"	3.5"	34′′
7.5"	3.5"	3/4′′
8.0"	4.25"	11/4′′
8.5"	4.25"	11/4′′
9.0"	4.25"	11/4"
9.5"	4.25"	11/4"
10.0"	5.25"	1½"
10.5"	5.25"	1½′′
11.0"	5.25"	1½"
11.5"	6.25"	1½"
12.0"	6.25"	1½"
12.5"	6.25"	1½"
13.0"	6.25"	1½"

Pavement Width	No. of Dowels
12'	12
14'	14

GENERAL NOTES:

Details hereon are for the fabrication of a expansion joint dowel assembly.

Dowel bars shall be 18" long with a tolerance of ±1/8". The centerline of individual dowels shall be parallel to the other dowels in the assembly within ±1/8".

All dowels shall be saw cut on both ends or sheared on both ends if deformation is less than 0.040" out of round.

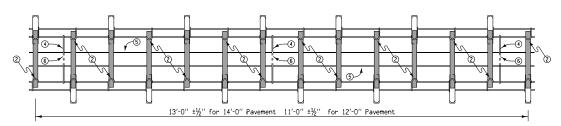
The dowels shall be round bars and conform to ASTM A 663 grade 60 or higher, ASTM A 675 grade 60 or higher, or ASTM A 615 grade 40 or

Dowels shall be epoxy coated to conform to AASHTO M 254 Type B coating with a thickness of 7 ± 2 mills after cure. The cut ends shall be free from burrs and projections and need not be coated.

The entire assembly, after fabrication, shall be dipped in a bituminous bond breaker or a paraffin based bond breaker prior to delivery to the work site. The bond breaker shall meet the requirements of standard specification 4137, 4138, or 4140. The application method shall be approved by the Office if Materials.

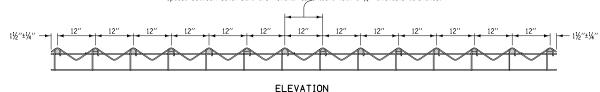
Wire size shown are minimum required, and the wire shall have a minimum tensile strength of 50 KSI.

- (1) (8) anchor pins minimum required, 4 per side. Anchor pins shall be a minimum 12" long and shall prevent movement of assembly during construction.
- (2) Weld alternately thru-out.
- (3) #1/0 gage (.306) wire
- (4) (3) #10 gage (.135) wire minimum, tie wire welded or friction fit to top longitudinal wire, both sides.
- (5) .250 dia. wire minimum
- 6) Clip and remove center portion of tie during field assembly.
- (7) Pins shall be a miminum of #1/0 gage (.306) wire.
- (8) Measured from the centerline of dowel bar to bottom of support wire $\pm V4^{\prime\prime}$.
- (9) Diameter of bend around dowel is dowel diameter + 1/8" to 3/16"



PLAN VIEW

Spaces between dowel bars are nominal dimensions with a $\frac{1}{4}$ " allowable tolerance.



lowa Department of Transportation Highway Division

STANDARD ROAD PLAN

REVISION: Clarify Tolerance In Elevation View. REVISION NO. REVISION DATE William G. Steen
APPROVED BY DESIGNMETHODS ENGINEER 04-15-03

> FABRICATION DETAILS **EXPANSION JOINT** DOWEL ASSEMBLY